

REMARKS

Claim 1-33 are pending with claims 1, 20 and 29 being independent. Claims 20-33 have been withdrawn by the Office.

In light of the following remarks, reconsideration and allowance of all claims are respectfully requested.

Objections to the Specification

The Office requests that Applicant amend the specification to reflect an updated status of parent application 09/422,058. Page 1 of the specification has been amended to show that the parent U.S. Patent Application No. 09/422,058 is now abandoned.

Rejections Under 35 U.S.C. § 112

Claims 1-19 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with enablement requirement. The rejection and its underlying reasoning are respectfully traversed.

Applicant's specification fully enables the pending claims. For example, Applicant's specification recites that "commercially available router devices" can be "re-purposed" into a "massively parallel context-sensitive channelization or micro-narrow cast system." (*See, e.g.,* Applicant's Specification at ¶ [0028].)

Figure 9 may depict one way in which to construct a Simple Network Ask Packet (SNAP) application layer frame as may be employed by the system and used by the navlet building block. Taxonomic information may be encoded into a standard switchable or routable address in a format supported by conventional routing or switching devices, and the SNAP may be encapsulated for transport to the SNAP routing or switching fabric at the nexus of the concentration layer and

topical selection layer of the system. Encoding the taxonomy into a conventionally supported address field of a well-supported protocol may allow the system to economically re-purpose commercially available router devices into a massively parallel context-sensitive channelization or micro-narrow cast system.

See, e.g., id. (Emphasis added.)

Also, Applicant's specification fully supports the claimed, "programming at least one router to select data packets from the broadcast medium based on selection criteria that correspond to the encoded information in the packet header." (*See, e.g., id.* at ¶¶ [0069]-[0070].)

Thus, the programming and updating of mask or router table entries in the topic selection 1242 in the conventional routers 1208, 1222 and 1236 may provide for different levels of taxonomical geographical information for broadcast from the concentration layer 1220. Many different taxonomic or categorization schemes are supported by the system's novel dual use of IP packet header fields and the examples given herein are merely illustrative. The category, topic, sub-topic and micro-topic selective section 1242 may pass taxonomized streaming bid/ask information to a broadcast stage 1244.

See, e.g., id. (Emphasis added.)

Further, Applicant's specification fully supports the claimed, "selecting the encoded packets based on encoded information in the header, the selecting process organizing the encoded information into a predetermined hierarchy of information based on the selection criteria, the resulting organization corresponding to one or more of the following: taxonomic classification, geographic location information, identity of the source of origin of a goods in commerce, type of goods or service offered in commerce, and brand name for a goods or services offered in commerce." (*See, e.g., Applicant's Specification at ¶¶ [0065], [0069], [0070], [0085], FIG. 12A, Nos. 1260, 1262, 1264, 1266, 1268, etc.*)

The SNAP for use in the system may begin with the construction of an application layer framing packet that uses a standard unit of IP communication such as a UDP packet to encode information about the payload (bid/ask or dynamic pricing data) into the source or destination data field for the IP header of a UDP packet to place

the packet into a predetermined taxonomy or hierachal classification of bid/ask information. Here, taxonomic information, referring to figure 11 for an example classification scheme, may be encoded into the IP source or destination address 902, 904 to provide classification information, e.g., meta-data about the payload, for the payload 406. The destination or source IP address field may be used to provide additional information about the payload such as geography information that may be relevant to the payload, such as an airport of origination for an air carrier fare 910 and flags 912 to specify further information about the payload, such as expiration time of the bid/ask information.

(*See, e.g.*, Applicant's Specification at ¶ [0065].)

Claims 1-19 also stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. The rejections are respectfully traversed.

In particular, claim 1 is rejected for a minor typographical error. Claim 1 has been amended to correct the typographical error.

In addition, the Office contends that “a method purport[ed] to be performed at the context-sensitive processing array would not render a router to be used as a context-sensitive processing array.” Applicant disagrees. However, to advance prosecution of the present application, the preamble of claim 1 has been amended to recite “A method for using a router as a context-sensitive processing array...the method comprising:”

Further, the Office contends that “[i]t is not seen how the act of selecting would result in organizing the encoded information into a predetermined hierarchy information as recited in [claim 1].” Applicant disagrees. The selection criteria used to select the encoded information enables the selected encoded information to be organized in a hierarchical manner. However, to expedite prosecution of the present application, claim 1 has been amended to recite “selecting the encoded packets based on encoded information in the header to organize the encoded information into a predetermined hierarchy of information based on the selection criteria...”

Also, the Office contends that “[i]t is not seen how the method as recited [in claim 1] would render a router to be used as a context-sensitive array.” Applicant disagrees. The router is used to “select data packets...based on selection criteria” and to organize the selected encoded information “to organize the encoded information into a predetermined hierarchy of information based on the selection criteria”. Thus, the router operates to select and organize encoded data in a context sensitive manner (based on the selection criteria).

Rejections Under 35 U.S.C. § 103

Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,574,230 to Almulhem (“Almulhem.”) The rejections and their underlying reasoning are traversed.

Claim 1

Almulhem fails to teach each and every feature of claim 1. The Office contends that the claimed “un-encapsulating” is inherent in the system of Almulhem. However, the cited portions of Almulhem fail to support the contention.

Among other things, claim 1 recites a method for using a router as a context-sensitive processing array. In one aspect, Application’s Specification describes that to use a router as a context-sensitive processing array a conventional router is re-purposed into a meta-data switch.
(*See*, Applicant’s Specification at pg. 29, ll. 3-22.)

[0070] A control program, see figure 12A, may be used to program and control the appropriate router tables to mask data into a taxonomy broadcast. Here, for example, a mask or table router entry of 255.200.1.xx.xxx may represent retail.consumer_electronics, which may provide an output of bid/ask information

in the retail.consumer_electronics category. As a further illustrative example a mask entry of 255.3xx.xxx.xxx may represent retail.appliances. A mask entry of 255.33x.xxx.xxx may represent a mask entry of retail.appliances.stove. A mask entry of 255.333.xxx.xxx may represent a mask entry of retail.appliance.stove.gas. A mask entry of 255.333.3xx.xxx may represent a mask entry of retail.appliances.stoves.gas.Viking. Thus, the 255.333.3xx.xxx table entry may provide streaming bid/ask information on Viking brand gas stoves. A further mask entry in the source or destination data field of the SNAP or functionally equivalent frame may further mask bid/ask information as, for example, Viking brand gas stoves in the 22xxx zip code geographic area where zip code information may be translated into the proper hexadecimal, octal or other address encoding scheme as supported by the IP addressing format masked by conventional routers. **Thus, the programming and updating of mask or router table entries in the topic selection 1242 in the conventional routers 1208, 1222 and 1236 may provide for different levels of taxonomical geographical information for broadcast from the concentration layer 1220.** Many different taxonomic or categorization schemes are supported by the system's novel dual use of IP packet header fields and the examples given herein are merely illustrative. The category, topic, sub-topic and micro-topic selective section 1242 may pass taxonomized streaming bid/ask information to a broadcast stage 1244. As previously discussed and incorporated herein by reference the broadcast stage may support a plurality of interfaces to provide cross-platform connection to the end user applications and navlets.

(*Id.* at pg. 29, ll. 3-22. Emphasis added.)

In contrast to claim 1, Almulhem teaches a routing system with a "scheduling apparatus, that can be used within a supertrunking capable Internet Protocol (IP) Forwarding (IPF) node, [that] allows for efficient scheduling packets for servicing after the packets are sorted into their proper order." (*See*, Almulhem at Abstract.) In providing the efficient scheduling, Almulhem teaches that "[t]he supertrunk output IPF nodes 212 then proceeds, for each individual packet, to read the contents of the PFH, to remove the PFH and RIU header from the packet, and to encapsulate the packet." (*See, id.* at col. 6, ll. 56-60.) Thus, the encapsulated packets are sent to their destination addresses, where they are "received at the supertrunk input IPF nodes 214." (*See, id.* at col. 7, ll. 6-19.) Since the packets in Almulhem are encapsulated when sent to their

destination (i.e., placed onto a medium), the system in Almulhem fails to “un-encapsulat[e] the data packet and plac[e] the [un-encapsulated] data packet onto a broadcast medium such that one or more routers can receive the data packet substantially simultaneously” as recited in claim 1. Further, even if the system in Almulhem could reasonably be construed to inherently teach “un-encapsulating” (which is not conceded), the issue is whether Almulhem teaches “un-encapsulating the data packet and placing the [un-encapsulated] data packet onto a broadcast medium such that one or more routers can receive the data packet substantially simultaneously.” The Office fails to prove that Almulhem teaches the claimed feature in its entirety.

In addition, the Office contends that Almulhem teaches the claimed “programming at least one router to select data packets from the broadcast medium based on selection criteria that correspond to the encoded information in the packet header” merely because Almulhem teaches “sorting data packets”. (*See, Office Action Dated April 2, 2007 at pg. 4, ll. 23-25.*) Again, the issue is not whether Almulhem teaches “sorting data packets.” The Office must show (which it has failed to do so) how Almulhem teaches the claimed “programming at least one router to select data packets from the broadcast medium based on selection criteria that correspond to the encoded information in the packet header.”

Further, the Office contends that the claimed “selecting the encoded packets based on encoded information in the header to organize the encoded information into a predetermined hierarchy of information based on the selection criteria” is obvious. However, the Office fails to explain its reasoning for holding the claimed feature obvious.

The Office concedes that “Almulhem does not teach that selecting would result in organizing the encoded information into a predetermined hierarchy of information.” (*See, Almulhem* at pg. 5, ll. 1-3.) However, the Office contends that “[i]t would have [been] obvious to a person o[f] ordinary skill in the art to associate the packet sequence (selection criteria) of Almulhem with selection criteria recited in the last 3 lines of claim 1 so that the sorting in accordance with packet sequence identifier in Almulhem would result in organizing the encoded information into a predetermined hierarchy of information.” (*See, id.* at pg. 5, ll. 3-7.) This reasoning for obviousness is merely a summary of the claimed features, and thus the Office fails to explicitly provide an apparent reason to combine the known elements as set forth in *KSR Int'l Co. v. Teleflex Inc.*

"[W]hen the question is whether a patent claiming the combination of elements of prior art is obvious [...] [one] [...] must ask whether the improvement is more than the predictable use of prior art elements according to their established functions."

See KSR Int'l Co. v. Teleflex Inc., slip op. at 13. Emphasis added.

Often, it will be necessary [...] to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit. See *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness"). As our precedents make clear, however, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

See KSR Int'l Co. v. Teleflex Inc., slip op. at 14. Emphasis added.

Also, the Office's reasoning for holding the claimed features obvious is further weakened by the fact that the claimed features are missing from Almulhem (as conceded by the Office). In fact, this is the kind of improper hindsight that the court warned against in *KSR Int'l Co. v. Teleflex Inc.*

A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning. See *Graham*, 383 U. S., at 36 (warning against a "temptation to read into the prior art the teachings of the invention in issue" and instructing courts to "'guard against slipping into the use of hindsight'" (quoting *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.*, 332 F. 2d 406, 412 (CA6 1964))). Rigid preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law nor consistent with it.

See KSR Int'l Co. v. Teleflex Inc., slip op. at 18 (emphasis added).

The proposed obviousness rejections based on Almulhem do not logically come together because the Office attempts to piece together the claimed features based only on the knowledge gleaned from Applicants' disclosure. Although, "[a]ny judgment on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but so long as it takes into account **only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure, such a reconstruction is proper.**" *In re McLaughlin* 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971); MPEP §2145 (X)(A). (Emphasis Added.) In the present situation, the knowledge within the level of ordinary skill in the art would not have led to the Office's conclusion of obviousness, and thus the knowledge was gleaned only from Applicants' disclosure.

For at least these reasons, claim 1 is allowable over Almulhem.

Claims 2-19

Claims 2-19 depend from claim 1, and are allowable over Almulhem for at least the same reasons. In addition, in rejecting claims 2-19, the Office merely contends that “the limitations in the wherein clauses have no functional effect on the method steps.” In fact, the Office’s fails to explain its reasoning for refusing to give weight to the wherein clauses. However, “wherein” and other similar clauses must not be ignored automatically. (See, MPEP 2111.04).

The determination of whether each of these clauses is a limitation in a claim depends on the specific facts of the case. In *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329, 74 USPQ2d 1481, 1483 (Fed. Cir. 2005), the court held that when a “whereby” clause states a condition that is material to patentability, it cannot be ignored in order to change the substance of the invention.” *Id.* However, the court noted (quoting *Minton v. Nat'l Ass'n of Securities Dealers, Inc.*, 336 F.3d 1373, 1381, 67 USPQ2d 1614, 1620 (Fed. Cir. 2003)) that a ““whereby clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited.”” *Id.*

MPEP 2111.04.

Each of the wherein clauses in claims 2-19 states a condition that is material to patentability, and thus each and every wherein clause must be given weight by the office. Further, claims 18 and 19 do not recite a wherein clause, and thus the Office has failed to address the limitations of these claims.

For these reasons, Applicant respectfully submits that the Office has failed to satisfied the burden of proof under § 103(a), and that the rejections are improper.

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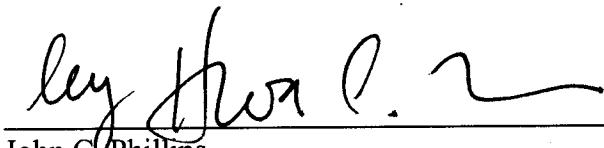
CONCLUSION

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as intent to concede any issue with regard to any claim, except as specifically stated in this paper.

For the foregoing reasons, all pending claims are in condition for allowance, and a notice to that effect is requested.

Please apply the One-Month Extension of Time and any other charges or credits to deposit account 06-1050.

Respectfully submitted,



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